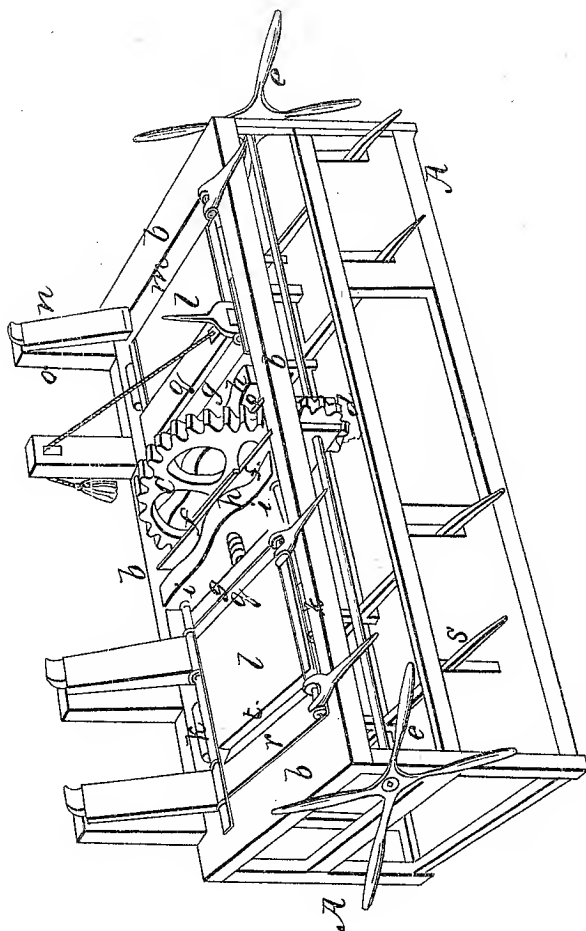


J. H. Washington,

Tobacco Press.

N^o 424.

Patented Oct. 12, 1837.



UNITED STATES PATENT OFFICE.

JAS. H. WASHINGTON, OF BALTIMORE, MARYLAND.

IMPROVEMENT IN PRESSES FOR PRESSING TOBACCO AND OTHER SUBSTANCES.

Specification forming part of Letters Patent No. 424, dated October 12, 1837.

To all whom it may concern:

Be it known that I, JAMES H. WASHINGTON, of the city of Baltimore and State of Maryland, have invented a new and Improved Press for Pressing Tobacco, Cotton, Oil, Hay, and other articles of various kinds; and I do hereby declare that the following is a full and exact description.

The principle consists in the use of a right and left screw on one shaft or stem, in combination with a cross-head and piston peculiarly connected, by which two or more compressions are produced at one operation, and at each end of the machine, by the alternate action and reaction of the screw, or by a reverse action of the driving-power.

In the drawing, A A is the frame on which rests *b b b*, a solid strong iron frame, in which are fitted the molds and other machinery.

c is a cog-wheel fast on the screw-shaft. It is driven by the pinion *d* and handles *ee*. The shaft on each side of the wheel has a bearing on the cross-pieces *ff*. Immediately on the outside of these cross-pieces, and at each side of the cross-pieces, commences the screw, and each screw extends till it butts up against the cross-pieces *g g* or part of the molds. *h h* are cross-pieces or female screw-threads, through which the screws pass. From the ends at *i i* are rods, which pass along on each side of the molds, and are attached to the shanks *kk* of the pistons *ll*, which answers for a division in the molds at each end of the machine. It will be seen that the two molds at each end of the machine are squares divided by the pistons.

m is a mold, open, the lid *n* being raised by the pulley in the upright *o*.

p is a lid closing the mold, with a lump under it. In the opposite mold, *q*, is a lump

pressed, the lid being up. *r* in the other mold shows the discharging-piston raised by the lever *s*. The bevel *t* on the piston *r* is designed to raise the lump in a proper position. It is retained in this position by a spring or other device at the bottom, so that when the pressing-piston *l* comes up it slides on the bevel and forces down *r*. It will be seen by the position of the pistons that two lumps in the molds *p* and *q* are under press and detained while the workman is taking the lumps from the two outer molds and replacing rolls in them for pressing. By this means or the peculiar structure of the cross pieces or heads and shanks of the pistons, the connections of the cross-heads and pistons being outside of the molds, two or more lumps (by the addition of molds on each side) may be pressed at once and detained under pressure a sufficient time for them to become set or permanently dense, the alternate action and reaction of the wheel in either direction pressing two lumps and freeing two others at the same operation.

The machine combines three essential properties—first, power to give any required density; secondly, produces permanent density; thirdly, great expedition without any loss of time.

I claim—

The peculiar manner of connecting the cross-heads and pistons—*i. e.*, the mode of connecting the cross-head to the piston, by which the piston can press on both sides, the cross-heads being connected to the shanks of the pistons on the outside of the molds—substantially as above described.

JAMES H. WASHINGTON.

Witnesses:

JOHN W. POST,
RICHD. MAYGER.